

**ISO series Frequency Signal to Voltage/Current Signal Transmitter**
**ISO F/V Series**

**General characteristic:**

- Accuracy Grade:0.2/0.5
- Extremely high linearity in whole process(nonlinearity<0.1%)
- Three-port isolation:2500VDC power supply/input/output
- Power supply:5VDC/12VDC/24VDC etc.
- Input frequency signal:0-1KHz/0-5KHz/0-10KHz  
Output voltage: 0-2.5V/0-5V/0-10V or current signal:  
0-10mA/0-20mA/4-20mA
- It can supply input superior draw power:5VDC/10mA
- Low cost,small size,SIP 12 anti- fire UL94V-0 package
- Industrial temperature range: -20~+85 °C
- Ceramic base,SMD

**Applications:**

- Sine wave,square wave,sawtooth wave etc. signal isolated amplifier and converter
- Transducer(FA) frequency signal data acquisition
- Generator,electromotor etc. cirumgyrate systems inspect
- Equipment and sensor signal acquisition
- Non-electricitymete signal transfer

**Specification:**

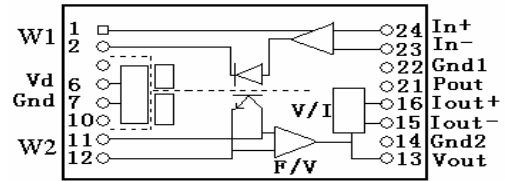
SunYuan ISO series frequency signal isolated transmitter is a mixed IC that frequency signal convert to standard signal pro rata. It is made of multiway high isolated DC/DC converters and a high speed frequency signal isolation and transmitter,suitable to any frequency signal isolated transform.Its isolated power not only provide power supply to internal transform,but also supply a isolated DC current to input port.It can meet industrial level for the extremely poor temperature,hunidity and shaking conditions. It is very easy to use,only a few external components are required.

**Part number and description:**

DIN 1X1 ISO- F□- P□- U(A) □

Input signal	Accessorial power supply	Output rated voltage (or current)
F1:0-5KHz	P1:DC24V	O1:4-20mA
F2:0-5KHz	P2:DC12V	O2:0-20mA
F3:0-10KHz	P3:DC5V	O4:0-5V
F4:User-defined	P4:DC15V	O5:0-10V
	P5:User-defined	O6:1-5V
		O7: User-defined

Continue isolation voltage value	2500VDC
Power Vin range:	±10%Vin
Jointing temperature(10sec.)	+300℃



If over above range, maybe cause products damaged permanently.

Figure 1

**Technic parameter:**

Parameter	Test Condition	Mix	Type	Max	Unit
Isolated voltage	AC,50Hz,1m	1000	2500		V(rms)
Input signal	Frequency	0	1000	20000	Hz
	Voltage	2.5	5		Vp-p
G.Adj	Voltage	5K	1		KHZ/V
	Current	5K	1/4		KHZ/mA
G.Adj temperature drift			100		ppm/℃
Non-linearity			0.1		%FSR
Input maladjusted voltage			5	7	mV
Output signal			5	10	V
Load capability	Vout=10V	1			kΩ
Signal output ripple	No-filter		5	7	mV
Signal voltage temperature drift			25		μ V/℃
Reference voltage source	Iout<50mA		5		V
Assistant power	Voltage	User-defined	3.3	12	VDC
	Current	VD=24V	50		mA
Power output ripple	No-filter	10			mV
Operating temperature		-20		85	℃
Storage temperature		-40		125	℃

**Application Examples:**

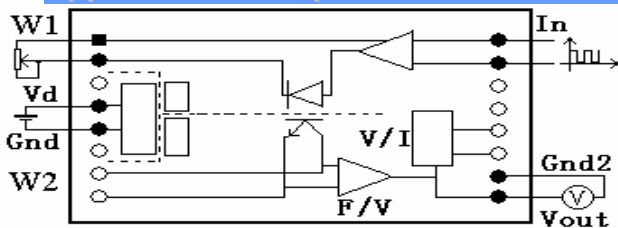


Figure 2

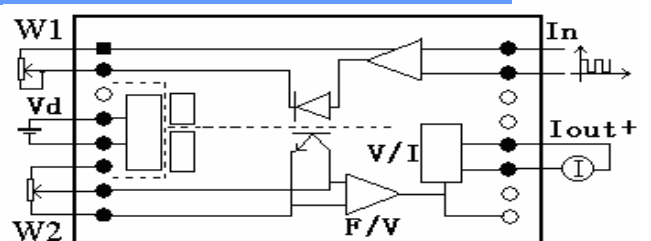


Figure 3

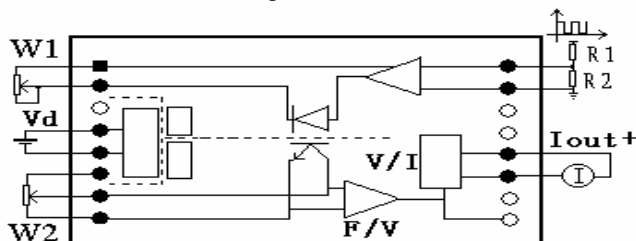


Figure 4

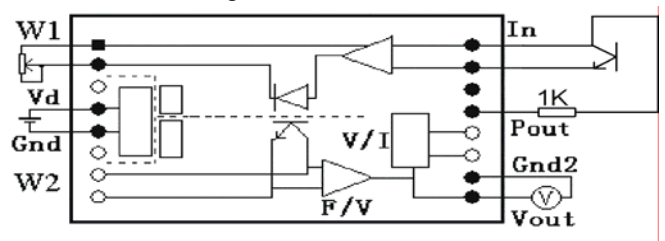


Figure 5

**Example 1:(refer to figure 2)**

**Figure 2:Test low voltage frequency signal,voltage output stype**

Input:0~10KHz/3~10VAC frequency signal,output:0~5VDC isolated signal.Don't make "ZERO" adjustment.W1=5K(multiturn potentiometer),adjust W1,make 10KHz corresponding to 5V output.

**Example 2:(refer to figure 3)**

**Figure 3: Test low voltage frequency signal,current output stype**

Input: 0~10KHz/3~10VAC frequency signal,output:0~20mADC isolated signal. Don't make "ZERO" adjustment. W1=5K(multiturn potentiometer),adjust W1,make 10KHz corresponding to 20mADC output.Refer to Figure 5.

**Example 3:(refer to figure 4)**

**Figure 4: Test high voltage frequency signal,current output stype**

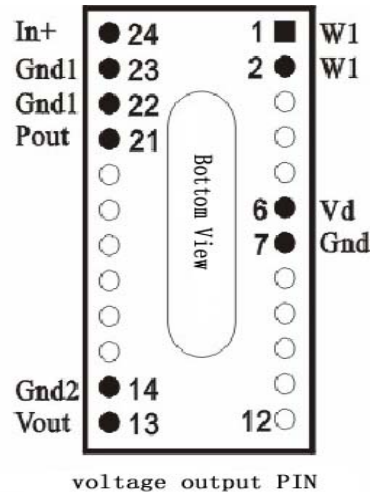
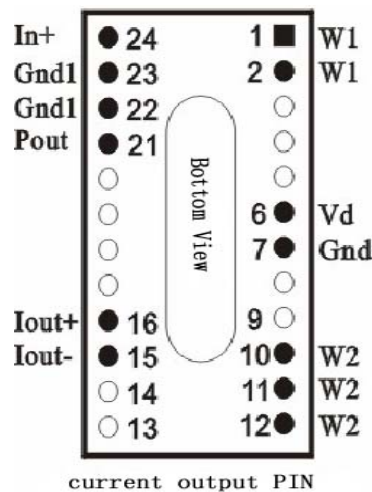
Input:0~10KHz frequency breadth value >10V,output:4~20mADC isolated signal.W2=10~20K potentiometer,adjust W1,make 10KHz corresponding to 20mADC.

**Example 4:(refer to figure 5)**

**Figure 5:Test open collector input frequency signal,output voltage**

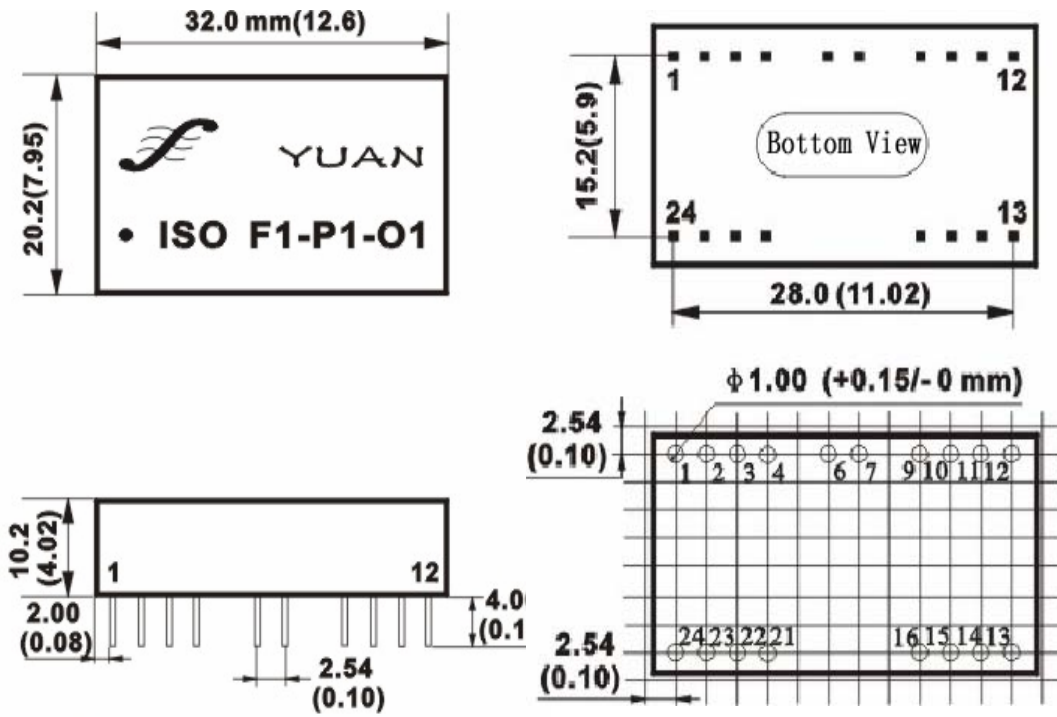
Input:0~10KHZC frequency signal,output:0~5VDC isolated signal.Don't need "ZERO"adjustment. W1=5K(multiturn potentiometer),adjust W1,make 10KHz corresponding to 5V output.

**PIN Function:**



Output ground	Output Gadj	power "+"	power "-"	Output "ZERO"	Vout "+"	Output ground	lout "+"	lout "-"	Pin "+"	Input ground	Frequency input
Gnd2	5K			10K		Gnd2			Vref	Gnd1	
W1	W1	Vd	Gnd	W2	Vout	Gnd2	Iout+	Iout-		Gnd1	In+
1	2	6	7	10 11 12	13	14	15	16	21	22 23	24

PCB reference size(Standard DIP 24Pin)



Shenzhen Sunyuan Technology Co.,Ltd.  
E-mail:info@szsunyuan.com  
Skype:candyatsunyuan  
MSN:sun-yuan03@hotmail.com